

## AMENDMENTS TO THE CLAIMS

*Please amend the claims as follows:*

1-36. (Cancelled)

37. (Previously presented) A method comprising:

receiving a plurality of Ethernet frames for transmission at a device, the device

including an enhanced network interface;

receiving a control message from a first Ethernet switch, the first Ethernet switch

including the enhanced network interface, the control message identifying

a priority level from among a plurality of priority levels for transmissions

to the first Ethernet switch;

identifying one or more of the plurality of Ethernet frames to be transmitted to the

first network switch and determining the identified priority level for the

first Ethernet switch; and

based on the identified priority level, pausing transmission to the first Ethernet

switch of Ethernet frames that are associated with priority levels that are

lower than the identified priority level and allowing transmission to the

first Ethernet switch of Ethernet frames that are at or above the identified

priority level.

38. (Currently amended) The method of claim 37, further comprising monitoring a

plurality of queues to buffer Ethernet frames, each queue being associated with a

different priority level, wherein the monitoring is performed at the first Ethernet switch.

39. (Previously presented) The method of claim 38, further comprising:  
comparing a level of use of each of the plurality of queues with a threshold  
relating to queue capacity for the transmission of Ethernet frames;  
based on the comparing, identifying the priority level associated with a queue, the  
priority level representing a priority level for which the plurality of queues  
have reached the threshold; and  
generating the control message containing the identified priority level.
40. (Previously presented) The method of claim 39, further comprising  
communicating the control message to trigger the pausing of the transmission of  
Ethernet frames to the first Ethernet switch.
41. (Previously presented) The method of claim 37, further comprising resuming the  
transmission to the first Ethernet switch of Ethernet frames associated with the  
lower priority levels that are lower than the priority level upon receiving another  
control message or upon completion of a predetermined time period as specified  
in the control message.
42. (Previously presented) The method of claim 37, further comprising receiving a  
second control message, and, in response to the second control message,  
extending the pausing of transmission to the first Ethernet switch of Ethernet  
frames associated with priority levels that are lower than the identified priority  
level.

43. (Previously presented) A system comprising:
- a buffer to hold a plurality of received Ethernet frames;
  - a first logic including an enhanced network interface, the first logic to:
    - receive a control message from a first Ethernet switch, the first Ethernet switch including the enhanced network interface, the control message identifying a priority level from among a plurality of priority levels;
    - identify Ethernet frames in the buffer to be transmitted to the first Ethernet switch; and
    - based on the control message, pause transmission to the first Ethernet switch of Ethernet frames associated with priority levels that are lower than the priority level identified in the control message.
44. (Previously presented) The system of claim 43, further comprising a second logic coupled with the first logic, the second logic to monitor a plurality of queues to buffer Ethernet frames at the first Ethernet switch, each queue associated with a different priority level.
45. (Previously presented) The system of claim 44, wherein the second logic is further to:
- compare a level of use of each of the plurality of queues with a threshold relating to queue capacity for the transmission of Ethernet frames;
  - based on the comparing, identify the priority level associated with a queue; and
  - generate the control message identifying the priority level.

46. (Previously presented) The system of claim 45, wherein the second logic is to communicate the control message to the first logic to trigger the pausing of the transmission of Ethernet frames.
47. (Previously presented) The system of claim 43, wherein the first logic is to resume the transmission of Ethernet frames associated with the lower priority levels than the priority level upon receiving another control message or upon completion of a predetermined time period as specified in the control message.
48. (Previously presented) The system of claim 43, wherein the first logic is to receive a second control message, and, in response to the second control message, the second logic is to extend the pausing of transmission to the first Ethernet switch of Ethernet frames associated with priority levels that are lower than the identified priority level.
49. (Currently amended) A computer-readable medium comprising instructions that, when executed, cause a processor to:
- receive a plurality of Ethernet frames for transmission at a device, the device
- including an enhanced network interface;
- receive a control message from a first Ethernet switch, the first Ethernet switch
- including the enhanced network interface, the control message identifying a priority level from among a plurality of priority levels for transmissions to the first Ethernet switch;

identify one or more of the plurality of Ethernet frames that are to be transmitted to the first Ethernet switch and ~~determining~~ determine the identified priority level for the first Ethernet switch; and

based on the control message, pause transmission to the first Ethernet switch of Ethernet frames that are associated with priority levels that are lower than the priority level and allow transmission to the first Ethernet switch of Ethernet frames that are at or above the identified priority level.

50. (Currently amended) The medium of claim 49, wherein the ~~instructions which,~~ instructions, when executed, further cause the processor to monitor a plurality of queues to buffer Ethernet frames, each queue associated with a different priority level, wherein the monitoring is performed at the first Ethernet switch.
51. (Currently amended) The medium of claim 50, wherein the ~~instructions which,~~ instructions, when executed, further cause the processor to:
- compare a level of use of each of the plurality of queues with a threshold relating to queue capacity for the transmission of Ethernet frames;
- based on the comparing, identify the priority level associated with a queue, the priority level representing a priority level for which the plurality of queues have reached the threshold; and
- generate the control message containing the identified priority level.
52. (Currently amended) The medium of claim 51, wherein the ~~instructions which,~~ instructions, when executed, further cause the processor to communicate the

control message to trigger the pausing of the transmission of Ethernet frames to the first Ethernet switch.

53. (Currently amended) The medium of claim 49, wherein the ~~instructions which,~~ instructions, when executed, further cause the processor to resume the transmission to the first Ethernet switch of Ethernet frames associated with the lower priority levels that are lower than the priority level upon receiving another control message or upon completion of a predetermined time period as specified in the control message.
54. (Currently amended) The medium of claim 49, wherein the ~~instructions which,~~ instructions, when executed, further cause the processor to receive at the enhanced network interface a second control message, and, in response to the second control message, extend the pausing of transmission to the first Ethernet switch of Ethernet frames associated with priority levels that are lower than the identified priority level.
55. (Previously presented) The system of claim 43, wherein the first logic includes a flow control agent, the flow control agent to monitor Ethernet traffic.
56. (Previously presented) The system of claim 55, wherein the flow control agent is included in a media access controller.
57. (Previously presented) The system of claim 43, further comprising a link to a second Ethernet switch that is not compatible with the enhanced network

interface, wherein the system is to operate in conjunction with the second Ethernet switch without regard to the priority level of Ethernet frames.

58. (Previously presented) The system of claim 43, further comprising a management data structure, the management data structure including a plurality of destination identifier entries and a priority entry for each of the destination identifier entries, the system to utilize the management data structure to identify the priority level for the first Ethernet switch.